



## ABSTRACT

~~The present invention provides a~~ A method for producing a single crystal by pulling a single crystal from a raw material melt in a chamber ~~in accordance with Czochralski method,~~ comprising according to the Czochralski method, including pulling a single crystal having a defect-free region-region, which is outside an OSF ~~region-region,~~ to occur in a ring shape in the radial ~~direction-and-direction,~~ and in which interstitial-type and vacancy-type defects do not exist in, wherein the pulling of the single crystal is performed with being exist. The pulling of the single crystal is controlled so that an average of ~~cooling-cooling~~ rate in passing through a temperature region of the melt ~~melting~~ point of the single crystal to 950 °C is in the range of 0.96 °C/min or ~~more-and-so-that-an-average-of more,~~ an average cooling rate in passing through a temperature region of 1150 °C to 1080 °C is in the range of 0.88 °C/min or ~~more-and-so-that-an-average-of more,~~ and an average cooling rate in passing through a temperature region of 1050 °C to 950 °C is in the range of 0.71 °C/min or more. ~~Thereby,~~ production margin in pulling a single crystal having a defect-free region can be considerably enlarged and therefore there can be provided a method for producing a single crystal by which production yield and productivity of the crystal having the defect-free region can be considerably improved.